

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P963150

Luminaire Tested: **NAV-SB2D-830-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963150
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-830-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18755.4 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

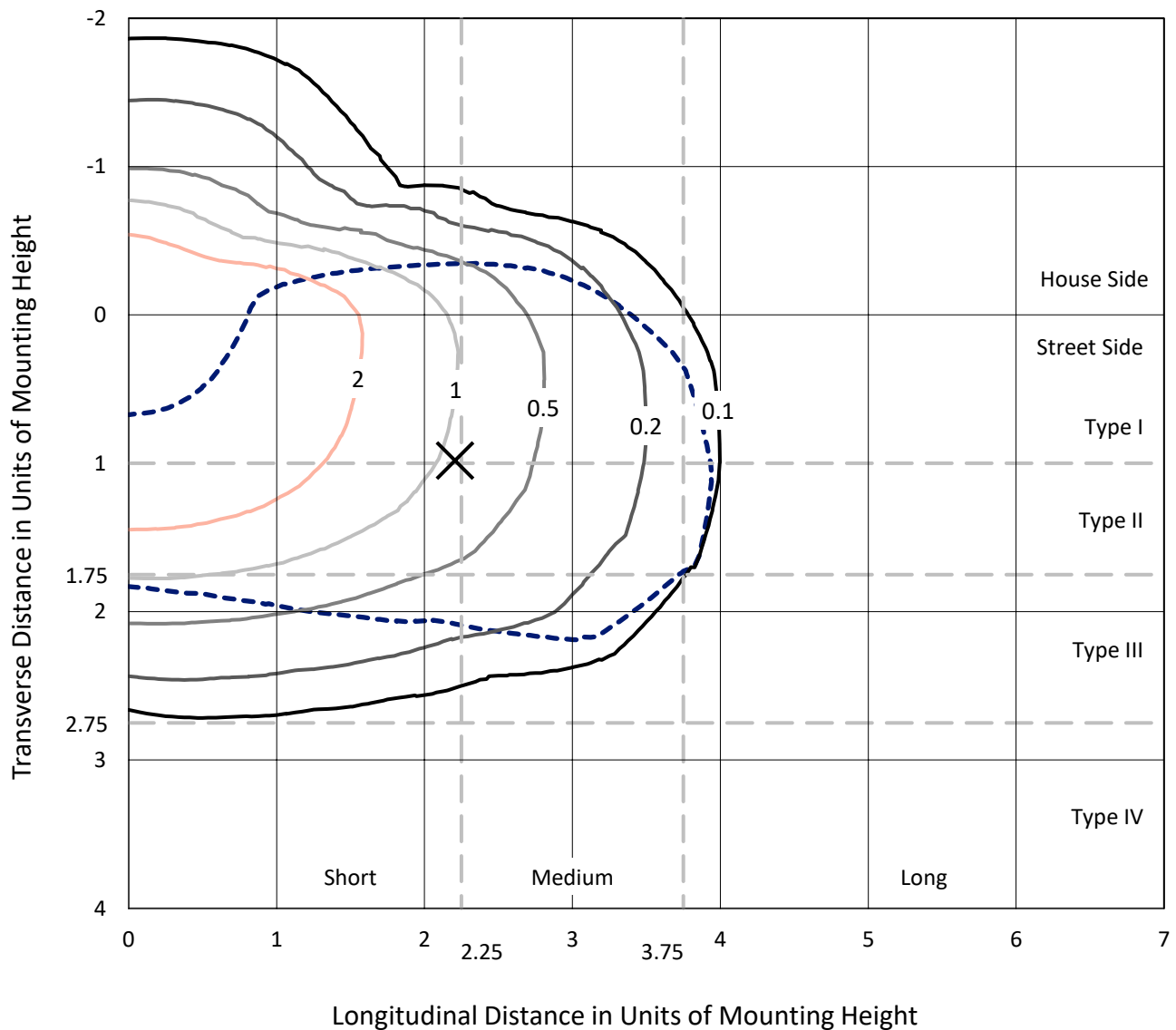
Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

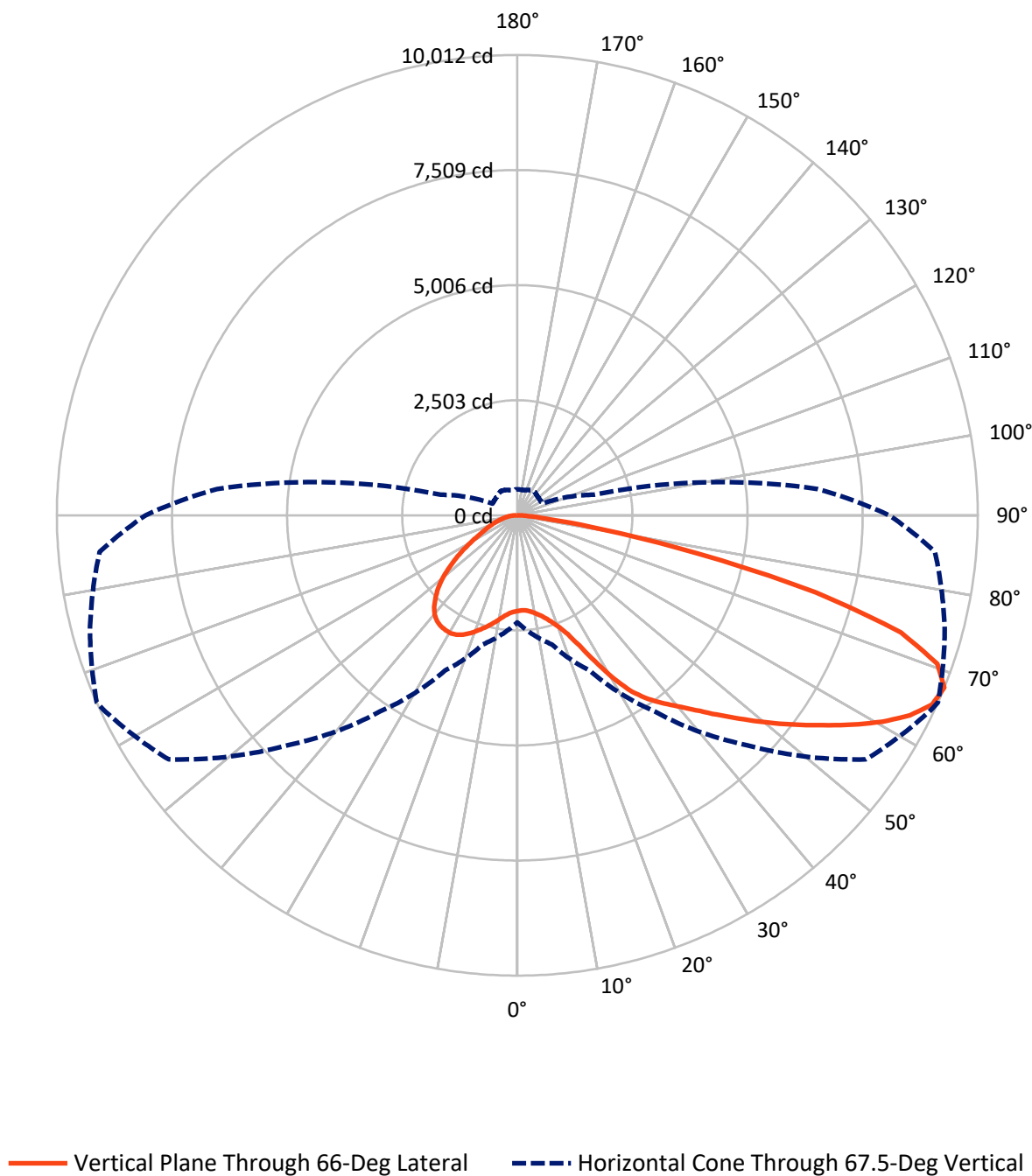
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4663.5	0.0	4663.5
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	14092.0	0.0	14092.0
	% Fixture	75.1	0.0	75.1
Total	Lumens	18755.4	0.0	18755.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.2	1.1
10°-20°	681.4	3.6
20°-30°	1313.4	7.0
30°-40°	2302.8	12.3
40°-50°	3423.6	18.3
50°-60°	4339.7	23.1
60°-70°	4246.3	22.6
70°-80°	2025.5	10.8
80°-90°	216.5	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	18755.4	100.0
0°-180°	18755.4	100.0

Coefficient of Utilization



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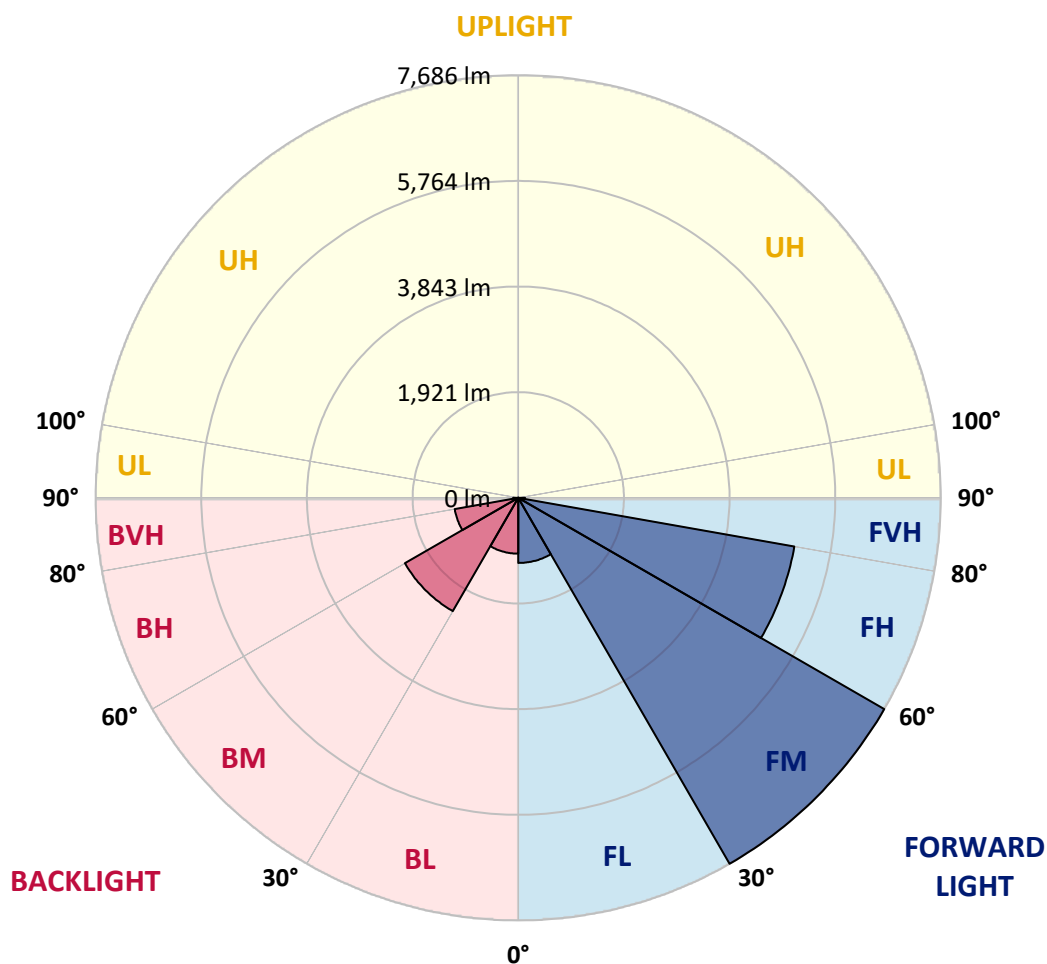
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1185.2	6.3			
FM	(30°-60°)	7685.8	41.0			
FH	(60°-80°)	5098.2	27.2			G3/7500
FVH	(80°-90°)	122.7	0.7			G2/225
BL	(0°-30°)	1015.9	5.4	B3/2500		
BM	(30°-60°)	2380.3	12.7	B2/2500		
BH	(60°-80°)	1173.6	6.3	B3/2500		G3/2500
BVH	(80°-90°)	93.7	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2080.2	2080.2	2080.2	2080.2	2080.2	2080.2	2080.2	2080.2	2080.2	2080.2	2080.2
2.5°	2058.5	2070.4	2067.4	2062.5	2061.5	2063.4	2066.4	2069.4	2068.4	2073.4	2081.3
5°	2052.7	2064.5	2063.4	2063.4	2067.4	2075.3	2080.2	2085.2	2080.2	2086.2	2096.9
7.5°	2056.6	2065.5	2069.4	2073.4	2083.2	2098.0	2109.8	2120.6	2114.7	2121.6	2135.4
10°	2106.8	2113.8	2117.6	2117.6	2124.6	2141.3	2153.1	2172.9	2168.0	2178.7	2196.5
12.5°	2198.5	2205.4	2205.4	2201.4	2206.3	2217.2	2221.2	2242.8	2234.0	2251.7	2269.5
15°	2310.9	2324.6	2313.7	2306.9	2308.8	2319.7	2318.7	2335.5	2326.5	2341.4	2357.1
17.5°	2435.0	2452.7	2435.0	2434.0	2430.1	2441.9	2442.9	2457.6	2441.9	2452.7	2463.6
20°	2581.8	2606.5	2591.7	2596.6	2587.7	2592.6	2597.6	2619.3	2594.6	2602.5	2599.5
22.5°	2788.7	2818.3	2802.6	2821.3	2815.4	2811.4	2810.4	2848.9	2810.4	2813.4	2784.8
25°	3090.3	3125.7	3098.2	3123.8	3123.8	3136.6	3151.4	3200.7	3136.6	3117.8	3043.9
27.5°	3535.7	3571.2	3517.0	3532.8	3527.8	3559.3	3543.6	3665.8	3596.8	3566.3	3417.5
30°	4071.8	4134.8	4032.3	4028.5	4023.4	4073.8	4096.4	4177.2	4107.3	4076.7	3897.4
32.5°	4651.2	4717.3	4595.1	4559.5	4540.9	4571.4	4552.6	4617.7	4569.4	4522.1	4300.4
35°	5264.1	5329.2	5212.8	5143.9	5069.0	5005.0	4937.9	4954.7	4909.3	4837.5	4607.9
37.5°	5843.5	5962.8	5839.6	5765.7	5627.8	5502.6	5315.3	5237.5	5195.1	5129.1	4897.6
40°	6433.8	6501.8	6408.2	6345.2	6195.3	5999.2	5699.7	5535.1	5478.0	5413.9	5217.8
42.5°	6868.4	6933.4	6883.2	6839.8	6722.6	6494.9	6107.7	5901.7	5818.9	5747.0	5580.4
45°	7213.3	7261.6	7230.0	7245.8	7195.6	6974.8	6530.4	6294.8	6209.1	6121.4	5990.4
47.5°	7352.2	7403.5	7453.7	7547.4	7633.1	7470.5	6984.7	6720.6	6629.9	6540.2	6411.2
50°	7336.4	7388.7	7534.6	7733.6	7999.6	7945.5	7463.6	7173.9	7090.1	6987.6	6868.4
52.5°	7210.4	7269.5	7456.7	7787.7	8211.5	8301.2	7951.3	7642.0	7563.2	7440.9	7321.7
55°	6879.2	6914.8	7195.6	7664.6	8261.8	8549.5	8429.3	8140.6	8061.7	7891.3	7761.2
57.5°	6265.3	6316.6	6725.5	7332.5	8135.6	8718.0	8849.1	8664.8	8589.0	8343.6	8207.6
60°	5464.2	5546.0	6014.1	6774.7	7814.4	8717.0	9230.4	9180.2	9117.2	8789.0	8647.1
62.5°	4557.6	4652.2	5102.6	5986.4	7252.7	8469.7	9468.9	9611.8	9579.3	9199.9	9018.6
65°	3500.3	3565.3	4013.6	4966.5	6378.7	7938.5	9496.5	9906.4	9912.4	9512.3	9212.7
67.5°	2330.5	2517.7	2907.0	3726.9	5207.9	7070.4	9254.1	9954.7	10011.9	9619.7	9115.1
70°	1137.1	1383.5	1764.8	2422.2	3726.9	5739.1	8620.5	9558.6	9685.7	9306.3	8533.7
72.5°	472.0	551.9	759.7	1195.4	2139.4	3872.8	7347.3	8484.5	8720.0	8246.0	7174.9
75°	318.3	344.9	434.6	612.9	974.6	1909.8	5298.6	6326.4	6705.8	6227.9	5090.7
77.5°	245.4	262.1	316.3	428.7	579.4	722.3	2836.1	3812.6	4008.7	3711.1	2648.8
80°	193.1	205.9	236.5	312.4	410.9	386.3	966.7	1727.4	1840.8	1544.2	851.4
82.5°	167.5	172.4	169.5	211.9	273.0	225.7	317.3	637.6	703.6	510.4	277.9
85°	121.3	135.0	140.9	131.1	144.8	114.3	130.1	225.7	248.4	221.7	156.7
87.5°	49.3	72.9	89.7	84.8	53.2	32.5	40.4	66.0	75.8	82.8	51.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2080.2	2080.2	2080.2	2080.2	2080.2	2080.2	2080.2	2080.2	2080.2	2080.2	2080.2
2.5°	2082.2	2089.1	2094.0	2099.9	2103.9	2109.8	2121.6	2128.5	2129.5	2134.5	2133.4
5°	2100.9	2110.8	2121.6	2137.4	2155.2	2169.9	2192.6	2208.4	2214.2	2219.1	2218.2
7.5°	2141.3	2155.2	2174.8	2202.4	2228.0	2247.7	2275.3	2294.1	2312.8	2319.7	2320.7
10°	2201.4	2221.2	2249.7	2287.2	2314.8	2340.4	2369.0	2384.8	2403.4	2411.3	2415.3
12.5°	2276.3	2297.0	2334.4	2386.7	2412.3	2430.1	2439.9	2436.0	2439.9	2446.8	2448.7
15°	2362.0	2384.8	2427.1	2483.3	2501.0	2485.2	2463.6	2443.8	2440.9	2442.9	2449.8
17.5°	2463.6	2480.3	2529.6	2576.8	2564.0	2499.1	2451.7	2420.2	2404.4	2399.5	2406.4
20°	2605.4	2605.4	2645.8	2675.5	2589.7	2479.4	2405.4	2354.2	2321.6	2307.9	2304.9
22.5°	2778.0	2762.2	2787.8	2767.1	2584.7	2424.1	2321.6	2233.0	2183.7	2164.0	2161.0
25°	2996.7	2977.9	2971.1	2842.9	2549.3	2336.5	2169.9	2062.5	2019.1	2008.3	2010.2
27.5°	3326.7	3279.5	3189.8	2884.4	2484.3	2198.5	1992.5	1893.0	1868.4	1869.4	1872.3
30°	3766.3	3671.7	3451.9	2891.2	2377.8	2003.4	1811.2	1740.2	1728.5	1733.4	1750.1
32.5°	4173.3	4083.6	3719.9	2859.6	2214.2	1812.2	1648.6	1601.4	1583.6	1589.5	1597.4
35°	4492.6	4467.9	3968.3	2815.4	2013.2	1632.8	1502.8	1462.4	1427.9	1420.0	1425.9
37.5°	4794.1	4784.2	4154.5	2753.3	1814.1	1505.7	1385.5	1332.3	1282.1	1254.4	1255.4
40°	5125.2	5115.4	4276.7	2657.7	1637.7	1395.3	1280.0	1210.1	1148.0	1097.8	1102.7
42.5°	5497.7	5439.6	4334.8	2520.7	1488.0	1301.8	1194.3	1099.7	1017.9	971.6	974.6
45°	5904.6	5773.6	4333.9	2346.3	1361.8	1216.1	1102.7	968.6	892.8	849.4	847.5
47.5°	6336.2	6092.9	4280.7	2153.1	1239.6	1121.5	960.8	858.3	808.0	781.5	775.5
50°	6781.7	6391.5	4190.0	1931.4	1114.5	1014.0	872.1	802.2	763.7	739.0	730.2
52.5°	7200.5	6662.4	4080.6	1680.2	987.4	909.6	832.7	778.5	738.1	710.5	698.6
55°	7589.7	6896.0	3926.0	1422.9	884.0	839.6	814.0	768.6	722.3	689.8	677.0
57.5°	7935.7	7047.7	3658.8	1181.5	810.1	791.3	794.3	751.8	698.6	671.1	653.3
60°	8223.4	7159.1	3263.7	957.9	749.9	743.9	763.7	720.4	658.3	626.7	612.9
62.5°	8395.8	7157.2	2778.9	784.4	698.6	700.6	723.3	680.9	617.9	588.2	579.4
65°	8381.0	6981.7	2246.8	671.1	649.4	651.4	680.9	637.6	584.4	566.6	565.6
67.5°	8084.4	6554.1	1723.5	597.2	595.2	604.0	638.6	608.0	563.6	561.7	564.7
70°	7281.3	5666.2	1241.6	538.0	539.0	551.9	597.2	589.3	552.8	556.8	555.8
72.5°	5838.6	4320.1	833.6	476.0	476.9	497.6	557.7	574.5	542.0	594.2	602.1
75°	3888.4	2694.1	536.1	409.9	410.9	437.6	523.3	545.9	512.4	592.2	597.2
77.5°	1868.4	1211.0	388.3	344.9	344.9	369.5	452.3	488.7	436.5	460.2	421.8
80°	645.4	455.3	305.4	277.9	271.9	288.7	381.4	423.7	376.5	346.9	325.2
82.5°	254.2	236.5	245.4	215.8	196.1	206.9	296.6	349.8	277.0	250.3	249.3
85°	145.9	153.8	173.4	142.9	113.4	127.1	217.8	251.3	208.9	184.3	188.2
87.5°	39.5	54.2	79.8	73.9	51.2	54.2	103.4	139.0	120.2	92.7	95.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)